

## CLAIMS

1. A transgenic mammal carrying a GANP gene transferred thereinto or its progeny.
- 5 2. The transgenic mammal according to claim 1 wherein the transferred GANP gene is expressed in B cells, or its progeny.
3. The transgenic mammal according to claim 1 or 2 wherein the mammal has been generated from GANP gene-transfected ES cells, or its progeny.
- 10 4. The transgenic mammal according to any one of claims 1 to 3 wherein the mammal is mouse, or its progeny.
5. A part of the transgenic mammal according to any one of claims 1 to 4 or its progeny.
- 15 6. A method of producing a high affinity antibody, comprising administering an antigen to the transgenic mammal according to any one of claims 1 to 4 or its progeny and recovering the antibody from the resultant mammal or progeny.
- 20 7. A high affinity antibody obtainable by the method according to claim 6, or a fragment thereof.
8. The antibody according to claim 7 wherein the affinity is  $1 \times 10^{-7}$  M or less as expressed as a dissociation constant, or a fragment thereof.
- 25 9. The antibody according to claim 7 or 8 which is a polyclonal or monoclonal antibody, or a fragment thereof.
10. A humanized antibody or human antibody, or a fragment thereof, comprising the V region of the antibody according to claim 9 or a fragment thereof.
- 30 11. A pharmaceutical composition comprising at least one selected from the group consisting of the antibody according to any one of claims 8 to 10 or a fragment thereof, and the humanized antibody or human antibody, or a fragment thereof according to claim 11.
- 35 11.

12. A high affinity antibody-producing cell which is taken from the transgenic mammal according to any one of claims 1 to 4 or its progeny, wherein said transgenic mammal or its progeny has been administered an antigen.

5